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**REMARKS**

Applicants would like to thank the Examiner for the careful consideration given this application. Claims 1-3 and 5-8 are pending in this application. Claim 4 has been cancelled, and Claim 1 has been amended. Claims 9-12 are withdrawn from consideration. However, Applicants herein reserve the right to file a divisional application on the withdrawn claims. Support for all amendments can be found in the specification as originally filed. No new matter has been added.

**Claim Rejection under 35 U.S.C. 102 and 35 U.S.C. 103**

Claims 1-3 and 5-8 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,851,463 to Guntherberg et al. (hereinafter "Guntherberg").

The Examiner alleges that the process of Guntherberg and Applicants' process are the same and, therefore, the characteristics of these processes would inherently be the same. Applicants respectfully disagree.

It is well settled that in order for a prior art reference to anticipate a claim, the reference must disclose each and every element of the claim with sufficient clarity to prove its existence in prior art. The disclosure requirement under 35 U.S.C. 102 presupposes knowledge of one skilled in the art of the claimed invention, but such presumed knowledge does not grant license to read into prior art reference teachings that are not there. *See Motorola Inc. v. Interdigital Technology Corp.* 43 USPQ2d 1481 (1997 CAFC).

Applicants have amended independent Claim 1 to clarify that in step (ii) of the claimed process, the compounding reactor is partially filled with elastomer D and thermoplastic resin B and that the partially filled compounding reactor is operated under conditions such that D and B are melted. Independent Claim 1 has been further amended to clarify that heat energy required to melt components D and B is introduced by both mechanical energy (*i.e.* friction) and by thermally heating a surface of the reactor.

Guntherberg fails to disclose a process wherein a partially filled extruder is used to mix an elastomer and thermoplastic and clearly states that the heat energy required

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for plastication is "introduced by friction of the polymer mixture against the plasticating elements" (column 5, lines 38-40). First and foremost, it is well known in the art that extruders are completely filled with polymer components during mixing and not partially filled as recited in amended independent Claim 1.

Moreover, the disclosure of Guntherberg fails to provide any teaching or suggestion of the addition of thermal energy by heating a surface of the reactor to melt the polymer components. In fact, Guntherberg warns against thermal damage to the polymer material as a result of excessive frictional heat associated with kneading, and suggests adding further plasticating sections where frictional heat will be used to melt the polymer material if melting the mixture is not complete in the first plasticating section (column 5, lines 55-59). This disclosure of Guntherberg clearly indicates that the addition of thermal energy through a surface of the reactor is not needed and would thermally damage the polymer material. In contrast, Applicants submit that when mixing components D and B in a partially filled reactor, insufficient heat is evolved by friction alone to melt the polymer mixture. Therefore, not only does Guntherberg fail to disclose the use of a partially filled reactor in the disclosed process, but the characteristics of Applicants' process would not be inherently the same as those of Guntherberg. Furthermore, Guntherberg's failure to teach or suggest the addition of a thermal energy to a surface of the reactor necessarily precludes Guntherberg from disclosing a ratio of mechanical to thermal energy used to completely melt the polymer material as recited in amended independent Claim 1, nor does the disclosure of Guntherberg obviate the claimed ratio. Accordingly, Guntherberg fails to disclose each and every element of amended independent Claim 1 either explicitly or inherently and, therefore, fails to anticipate amended independent Claim 1.

Claims 2, 3, and 5-8 either directly or indirectly depend from and add further limitations to amended independent Claim 1 and are deemed allowable for at least the same reasons in combination with amended independent Claim 1. Reconsideration of the Examiner's rejection is respectfully requested.

Claim 4 stands rejected under 35 U.S.C. 102(b) and, in the alternative, 35 U.S.C. 103(a) as being obvious over Guntherberg. Claim 4 has been cancelled rendering the Examiner's rejection to Claim 4 moot.

It is believed that the pending claims are now in condition for allowance and notice to such effect is respectfully requested. Should the Examiner have any questions regarding this application, the Examiner is invited to initiate a telephone conference with the undersigned.

Respectfully submitted,

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